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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GERBRAND DEETMAN

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Appeal 2010-000238  
Application 09/801,883  
Technology Center 1700

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Before ALLEN R. MACDONALD, LINDA E. HORNER, and  
JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

ROBERTSON, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

### STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting pending claims 131-152 in reissue application 09/801,883. Reissue application 09/801,883 seeks to reissue U.S. Patent 5,464,551, issued November 7, 1995 (the '551 Patent). We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

### BACKGROUND

Appellant's invention is directed to a combination of additives for mixing with a phosphate ester based aircraft hydraulic fluid including an acid scavenger, an anti-erosion additive, a viscosity index improver, and an anti-oxidant. (Col. 2, l. 65 – col. 3, l. 11.)

Claims 131-152 were added by reissue. Claim 131 is illustrative (with underlining indicating that the claim was added by reissue):

131. A novel combination of additives useful for mixing with phosphate ester based aircraft hydraulic fluids comprising:  
(a) an acid scavenger comprising an epoxide compound;  
(b) an anti-erosion additive comprising an alkali metal salt of a perfluoroalkyl sulfonic acid;  
(c) a viscosity index improver comprising a methacrylate ester polymer at least 95% by weight of the polymer having a molecular weight of between about 50,000 and 1,500,000; and  
(d) an antioxidant wherein said antioxidant is selected from the group consisting of a hindered phenol and said hindered phenol in combination with an amine compound.

Appellant seeks review of the Examiner's rejection of claims as follows:

1. claims 131-152 under 35 U.S.C. § 251 as being an improper recapture of broadened subject matter surrendered in the application for the '551 patent, upon which the present reissue application is based;
2. claim 131 under 35 U.S.C. § 103(a) as being obvious over MacKinnon (U.S. 4,206,067, issued June 3, 1980) in view of Smith (U.S. 3,679,587, issued July 25, 1972)<sup>2</sup>; and
3. claims 131-152 under 35 U.S.C. § 103(a) as being obvious over MacKinnon in view of Smith, further in view of GB 1,370,728 published October 16, 1974 ("GB '728") or FR 2,120,127 published August 11, 1972 ("FR '127") (English Translation of Record).

### ISSUES

The issues presented by this appeal are:

Are claims 131-152 directed to subject matter that represents an improper recapture of broadened subject matter surrendered during prosecution of the '551 Patent?

Viewing the evidence as a whole, including Appellant's evidence of unexpected results, would it have been obvious to have combined the

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<sup>2</sup> Though Appellants indicate that this ground of rejection includes claims 131-152 (App. Br. 11), the Examiner only includes claim 131 in the statement of rejection in both the Final Rejection and the Answer. (Final Rejection mailed November 27, 2007 at 3; Ans. 3.) Accordingly, for the purposes of this decision, we will treat the rejection of MacKinnon in view of Smith as applying only to claim 131.

teachings of MacKinnon in view of Smith, to arrive at the additive composition recited in claim 131?

Viewing the evidence as a whole, including Appellant's evidence of unexpected results, would it have been obvious to have combined the teachings of MacKinnon in view of Smith, and GB '728, to arrive at the recited additive composition of claims 131-152?

### PRINCIPLES OF LAW

"The recapture rule, therefore, prevents a patentee from regaining through reissue the subject matter that he surrendered in an effort to obtain allowance of the original claims. Under this rule, claims that are 'broader than the original patent claims in a manner directly pertinent to the subject matter surrendered during prosecution' are impermissible." *In re Clement*, 131 F.3d 1464, 1468 (Fed. Cir. 1997) (citations omitted).

The first step in applying the recapture rule is to determine whether and in what 'aspect' the reissue claims are broader than the patent claims. . . . The second step is to determine whether the broader aspects of the reissue claims relate to surrendered subject matter. To determine whether an applicant surrendered particular subject matter, we look to the prosecution history for arguments and changes to the claims made in an effort to overcome a prior art rejection.

*Id.*, at 1468-69.

"If the scope of the reissue claim is the same as or broader than that of the canceled claim, then the patentee is clearly attempting to recapture surrendered subject matter and the reissue claim is, therefore, unallowable."

*Id.*, at 1469 (internal citations omitted).

If reissue claims are broader in some aspects and narrower in other aspects than the canceled claims, then:

(a) if the reissue claim is as broad as or broader in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim; (b) if the reissue claim is narrower in an aspect germane to prior art rejection, and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim, but other rejections are possible.

*Id.*, at 1470.

“[W]hen a patent claims a structure already known in the prior art that is altered by mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) (citing *U.S. v. Adams*, 383 US 39, 50-51 (1966)).

A showing of unexpected results may be sufficient to overcome a *prima facie* case of obviousness. *In re Dillon*, 919 F.2d 688, 692-93 (Fed. Cir. 1990). Such a showing must be based on evidence, not argument or speculation. *In re Mayne*, 104 F.3d 1339, 1343-44 (Fed. Cir. 1997); *In re Schulze*, 346 F.2d 600, 602 (CCPA 1965). The evidence must also be reasonably commensurate in scope with the claimed invention. *In re Greenfield*, 571 F.2d 1185, 1189 (CCPA 1978).

## FACTUAL FINDINGS

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Claim 1 of the ‘551 Patent recites a fluid composition including:
  - (a) a fire resistant phosphate ester base stock; (b) an acid

scavenger; (c) an anti-erosion additive; (d) a viscosity index improver; and (e) an antioxidant. (The '551 Patent, col. 39, l. 44 – col. 40, l. 8.)

2. The '551 Patent discloses: "Enhanced erosion resistance is provided in the composition of the invention, which preferably contains a perfluoroalkylsulfonic salt content about twice that of the prior art composition sold as LD4." (Col. 9, ll. 23-26.)
3. The '551 Patent discloses examples of phosphate ester base functional fluids and compares functional fluids according to the present invention to prior art fluids Skydrol® LD-4 and Hyjet® IVA. (Col. 32, ll. 27-35; Table 11.)
4. The amounts of anti-erosion agent and antioxidant present in the Examples according to the invention (Ex. 1-13) are larger than the amount of anti-erosion agent and antioxidant present in the prior art fluids. (Col. 35-36, Table 11.)
5. Appellant argued during prosecution of the '551 Patent that the isoalkyl groups on the phosphate moiety of the phosphate ester based stock component recited in the claims was a distinguishing feature over MacKinnon. (Ans. 8-9, quoting response filed June 28, 1994 in Application 08/099,267.)
6. MacKinnon discloses functional fluids having phosphate esters as the preferred base fluid, where the alkyl groups in the phosphate esters may either be straight-chain or branched-chain. (Col. 2, l. 48 – col. 3, l. 19.)

7. MacKinnon discloses functional fluid containing perhalometallic or perhalometalloidic acid as an anti-erosion agent. (Col. 2, ll. 14-17, 31-38.)
8. MacKinnon discloses oxidation inhibitors, which are preferably hindered phenols. (Col. 6, l. 66 – col. 7, l. 2.)
9. MacKinnon discloses hydrolysis inhibitors including epoxides. (Col. 7, ll. 3-8, 14-62.)
10. MacKinnon discloses viscosity index improving agents, particularly methacrylic acid ester polymeric materials with molecular weights between 5,000 and 300,000. (Col. 7, l. 63– col. 8, l. 3.)
11. Smith discloses the addition of alkali metal salts of perfluoroalkyl sulfonic acids to the phosphate ester based functional fluid in order to inhibit erosion. (Col. 1, ll. 12-17; col. 3, ll. 11-20.)
12. Smith discloses a phosphate ester based functional fluid where the alkyl groups of the phosphate ester may be linear, e.g., ethyl, propyl, or branched, e.g., isopropyl, 2-ethylhexyl. (Col. 3, ll. 64-66.)
13. GB ‘728 discloses a phosphate ester based fluid containing “synergistic combinations of certain hydrogen phosphates and a certain hindered phenols.” (P. 1, ll. 6-9.)
14. GB ‘728 discloses that the alkyl groups of the phosphate ester base stock may be linear, e.g., ethyl, propyl, or branched, e.g., isopropyl, isoamyl. (P. 1, ll. 24-35.)



15. The Wolfe Declaration presents fluid life results of functional fluids, Type IV fluids and Type V fluids, having different additive packages. (Wolfe Declaration, para. 5.)
16. The Type V fluids contain a larger amount of phenolic antioxidant than the Type IV fluids, and neither the Type IV fluid nor the Type V fluid is disclosed as containing the recited viscosity index improver (c). (Wolfe Declaration, para. 5.)

## ANALYSIS

### *Reissue/Recapture*

We are in complete agreement with the Examiner's analysis that claims 131-152 represent an attempt to recapture subject matter surrendered during prosecution of the '551 Patent. (Ans. 3, 6-9.) Specifically, as pointed out by the Examiner, claims 131-152 omit the phosphate ester base stock limitation recited in, e.g., claim 1 of the '551 patent, which amounts to a broadening of the claims of the '551 Patent. (Ans. 7.) Thus, contrary to Appellant's arguments that the reissue claims are directed to an entirely different invention not previously prosecuted (App. Br. 13, 19), we agree with the Examiner that the reissue claims were merely broadened by omitting the phosphate ester based stock limitation, i.e., the claims omit an element of the combination recited in the original '551 Patent claims.

The Examiner determined that in further limiting the recited acid scavenger, anti-erosion additive, viscosity index improver, and anti-oxidant relative to claim 1 of the '551 Patent, the additive package recited in claims 131-152 is more narrow than the additive package of claim 1 of the '551 Patent. (Ans. 9.) In other words, claim 1 of the '551 Patent broadly requires

all of the components of the additive package recited in claims 131-152, namely an acid scavenger, an anti-erosion additive, a viscosity index improver, and an anti-oxidant, but claims 131-152 are more specific with regard to the recited additive package components. (FF 1.)

However, the Examiner also correctly determined that the aspects of the reissue claims that were broadened relate to subject matter surrendered during the course of prosecution. (Ans. 8-9.) Specifically, Appellant argued during prosecution of the '551 Patent that the isoalkyl groups on the phosphate moiety of the phosphate ester based stock component recited in the claims was a distinguishing feature over MacKinnon. (FF 5.)

Appellant's position that the "additive package" recited in the reissue claims is novel (App. Br. 19), does not affect its surrender of phosphate ester base stock components other than those that are substantially isoalkyl C4 and C5. *MBO Labs, Inc. v. Becton, Dickinson & Co.*, 602 F.3d 1306, 1316 (Fed. Cir. 2010) ("MBO's arguments distinguishing the prior art based on its safety flange do not affect its surrender of another subject matter: a patentee's arguments that emphasize one feature cannot cure arguments that clearly surrender another.") Accordingly, since the reissue claims now omit the phosphate ester base stock component entirely, Appellant is attempting to improperly recapture subject matter surrendered during prosecution of the '551 Patent. Thus, the Examiner correctly determined that the recapture rule bars the claims. (Ans. 9.)

Moreover, Appellant's reliance on *In re Doyle*, 293 F.3d 1355 (Fed. Cir. 2002) and *Medtronic Inc. v. Guidant Corp.*, 465 F.3d 1360 (Fed. Cir. 2006) as requiring reversal of the Examiner's rejection is misplaced. In *Doyle*, the Board had reversed the Examiner's rejection of the reissue claims

based on recapture because the pertinent claims of the patent application were not canceled to overcome prior art. *Doyle*, at 1357-58. In contrast, as discussed above, Appellant relied on the subject matter removed from the '551 Patent in the present reissue claims to overcome the prior art during the original prosecution of the '551 Patent. There is no indication that in *Doyle*, the method being limited to enantioselectively inserting a carbene between a carbon and a hydrogen played any part in obtaining allowance of the claims. Similarly, in *Medtronic*, as acknowledged by Appellant, the Applicant did not reduce the scope of the claims intentionally or by argument to overcome the prior art. (App. Br. 22.) Such is not the case here. Accordingly, we do not share Appellant's view that *Doyle* and *Medtronic* are controlling in the instant case and require reversal of the Examiner's rejection.

### *35 U.S.C. § 103 Rejections*

The Examiner found that MacKinnon discloses the recited combination of additives with the exception of the anti-erosion additive being an alkali metal salt of a perfluoroalkyl sulfonic acid. (Ans. 4.) The Examiner found that Smith discloses a phosphate ester based functional fluid containing alkali metal salts of perfluoroalkyl sulfonic acids as the anti-erosion additive. (Ans. 4.) The Examiner concluded that it would have been obvious to employ the perfluoroalkyl sulfonic acid additives in Smith as the anti-erosion additive of MacKinnon. (Ans. 4-5.)

For rejection 3, the Examiner relied on GB '728 as teaching the specific hindered phenol anti-oxidants recited in the claims, where it would have been obvious to employ the specific hindered phenols in MacKinnon, because MacKinnon discloses hindered phenol anti-oxidants and the

hindered-phenols of GB '728 are known anti-oxidants in phosphate ester based functional fluids. (Ans. 5.)

Regarding rejection 2, Appellant contends that although Smith issued years before MacKinnon, there was no interest to include the erosion inhibitor of Smith in the additive package claimed. (App. Br. 14.) Appellant also argues that there were endless choices to be made in combining ingredients for additive packages in hydraulic fluids. (App. Br. 24.)

Regarding rejection 3, Appellant contends that one of ordinary skill in the art would not have destroyed the synergistic combination of hindered phenol with hydrogen phosphate ester disclosed in GB '728, by picking the hindered phenol out of the combination to use in MacKinnon in view of Smith. (App. Br. 29-30.)

Because Appellant does not present separate arguments with respect to each of the claims subject to rejection 3, we largely confine our discussion to claim 131 pursuant to 37 C.F.R. § 41.37(c)(1)(vii). In addition, Appellant's arguments regarding rejections 2 and 3 are substantially similar with respect to the combination of MacKinnon and Smith (App. Br. 29). Therefore, we discuss rejections 2 and 3 together, and address Appellant's arguments as to GB '728 applied in rejection 3 as necessary.

Appellant's arguments are unconvincing. It is well settled that arguments related to the age of references are insufficient to overcome a prima facie case of obviousness. *In re Wright*, 569 F.2d 1124, 1127, (CCPA 1977). In addition, we are not persuaded by Appellant's argument that there were endless amounts of choices to be made to arrive at Appellant's recited additive combination. MacKinnon discloses the broad combination of

additives recited in the claims including the anti-erosion agent, as well as the specific identify of many of the other additives recited in the claims. (FF 7-10.) Thus, the substitution of the alkali metal salts of perfluoroalkyl sulfonic acid anti-erosion additives of Smith (FF 11) and the hindered phenol anti-oxidants of GB '728 for the corresponding components disclosed in MacKinnon amounts to nothing more than mere substitution of one additive for another to obtain a predictable result. *KSR*, 550 U.S. at 416

Moreover, because GB '728 discloses synergy between the hindered phenols and the hydrogen phosphate (FF 13), does not mean that the hindered phenols disclosed therein would not perform an anti-oxidant function in other phosphate ester based compositions. In addition, the instant claims contain the transitional phrase "comprising" and thus are open to the addition of the hydrogen phosphate disclosed in GB '728 in addition to the hindered phenol.

Appellant contends that there are unexpected results in the claimed additive combination in that it provides similar fluid life characteristics to prior art n-alkyl phosphate ester fluids as to phosphate ester fluids containing iso-alkyl moieties. (App. Br. 24.) Specifically, Appellant relies on the Declaration of Dr. Terry Wolfe of June 24, 1997 ("the Wolfe Declaration") as providing evidence of unexpected results. (App. Br. 26, 31-33.) Appellant contends that the unexpected results are commensurate in scope with the claims. (App. Br. 33-34.)

However, we agree with the Examiner that the results presented in the Wolfe Declaration are insufficient to demonstrate unexpected results. (Ans. 11.) In addition, the Wolfe Declaration presents results comparing the fluid life of Type IV fluids with Type V fluids. (FF 15.) However, neither fluid

is commensurate with the scope of the claimed combination of additives. Specifically, neither the Type IV fluid nor the Type V fluid is disclosed as containing the recited viscosity index improver. (FF 16.)

Moreover, the claims on appeal do not recite any amounts for each additive in the claims, whereas the Type V fluids contain increased amounts of anti-oxidant as compared to the Type IV fluids. (FF 16.) Further, in the examples comparing the fluids in the '551 Patent to prior art fluids, the fluids according to the '551 Patent contain anti-erosion agents and anti-oxidants in amounts greater than the amounts of anti-oxidants in the prior art fluids. (FF 3, 4.) Thus, it cannot be determined whether the improvement in fluid life is obtained as a result of the increased amounts of the employed additives, or the identity of the additives. Therefore, the results are not commensurate in scope with the claims. As a result, we determine that the evidence of unexpected results is insufficient to outweigh the Examiner's evidence of obviousness.

#### DECISION

We affirm the Examiner's rejection of claims 131-152 under 35 U.S.C. § 251. Additionally, we affirm the Examiner's rejections of claims 131-152 under 35 U.S.C. § 103(a).

#### TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1) (2009).

Appeal 2010-000238  
Application 09/801,883

ORDER  
AFFIRMED

KMF

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